

**Experiment Number:** 99037-04  
**Test Type:** 90-DAY  
**Route:** Gavage  
**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
**Test Compound:** alpha/beta Thujone mixture  
**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 21:16:50  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**C Number:** C99037B  
**Lock Date:** 04/04/2003  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date** NONE

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Lab: SRI

B6C3F1 Mouse Male  
0 MG/KG

DAY ON TEST	ANIMAL ID	0 0 0 0 0 0 0 0 0 0									
		0 0 0 0 0 0 0 0 0 0									
		9 9 9 9 9 9 9 9 9 9									
		3 3 3 3 3 3 3 3 3 3									
		0 0 0 0 0 0 0 0 0 0									
		0 0 0 0 0 0 0 0 0 0									
		0 0 0 0 0 0 0 0 0 0									
		0 0 0 0 0 0 0 0 0 0									
		1 2 3 4 5 6 7 8 9 0									

\*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Gallbladder	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Depletion Glycogen		1	1		1	1	2		5	1.2	
Inflammation, Chronic Active			1						1	1.0	
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10
Cyst				X		X	X		3		

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	10
-------	---	---	---	---	---	---	---	---	---	---	----

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
----------------	---	---	---	---	---	---	---	---	---	---	----

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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0 MG/KG

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Cyst					X						1
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric	+	+	+	+	+	+	+	M	+	+	9
Spleen	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia, Lymphoid					2				1	2.0	
Pigmentation, Hemosiderin, Focal					1				1	1.0	
Thymus	+	+	+	+	+	+	+	+	+	+	10

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Lab: SRI

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**0 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Integumentary System**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	0
Skin	+	+	+	+	+	+	+	+	+	+	10

**Musculoskeletal System**

Bone	+	+	+	+	+	+	+	+	+	+	10
Skeletal Muscle	+	+	+	+	+	+	+	+	+	+	10

**Nervous System**

Brain	+	+	+	+	+	+	+	+	+	+	10
Peripheral Nerve	+	+	+	+	+	+	+	+	+	+	10
Spinal Cord	+	+	+	+	+	+	+	+	+	+	10

**Respiratory System**

Lung	+	+	+	+	+	+	+	+	+	+	10
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10

**Special Senses System**

Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Acute							2	1	2.0		

**Urinary System**

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	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

Kidney	+	+	+	+	+	+	+	+	+	+	10
Nephropathy											1 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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**Lab:** SRI

**B6C3F1 Mouse Male  
6.25 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	2
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

Adrenal Cortex

++ + + + + + + + + + 10

Adrenal Medulla

++ + + + + + + + + + 10

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

NONE

**Musculoskeletal System**

Skeletal Muscle

M M M M M M M M M M 0

**Nervous System**

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DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	2
	1	2	3	4	5	6	7	8	9	0
	<b>*TOTALS</b>									
Brain	+	+	+	+	+	+	+	+	+	10
Peripheral Nerve	M	M	M	M	M	M	M	M	M	0
Spinal Cord	M	M	M	M	M	M	M	M	M	0

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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**Lab:** SRI

**B6C3F1 Mouse Male  
12.5 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	3
	1	2	2	3	4	5	6	7	8	9
	<b>*TOTALS</b>									

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

Adrenal Cortex + + + + + + + + + + 10

Adrenal Medulla + + + + + + + + + + 10

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

NONE

**Musculoskeletal System**

Skeletal Muscle M M M M M M M M M M 0

**Nervous System**

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+ ..Tissue examined microscopically M ..Missing tissue

X ..Lesion present A ..Autolysis precludes evaluation

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12.5 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	3
	1	2	3	4	5	6	7	8	9	0
	<b>*TOTALS</b>									

Brain + + + + + + + + + + 10

Peripheral Nerve M M M M M M M M M M 0

Spinal Cord M M M M M M M M M M 0

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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**B6C3F1 Mouse Male  
25 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Alimentary System**

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Gallbladder	+	+	+	+	+	+	M	+	+	+	9
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Depletion Glycogen	2	2	1			1	2		5	1.6	
Hematopoietic Cell Proliferation	1	1						2	1.0		
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10
Cyst	X			X				2			
Edema	2						1	2.0			
Infiltration Cellular, Eosinophil	2						1	2.0			

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	+	10
-------	---	---	---	---	---	---	---	---	---	---	----

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DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

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	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Integumentary System**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	0
Skin	+	+	+	+	+	+	+	+	+	+	10

**Musculoskeletal System**

Bone	+	+	+	+	+	+	+	+	+	+	10
Skeletal Muscle	+		+			M	M	M	M	M	2

**Nervous System**

Brain	+	+	+	+	+	+	+	+	+	+	10
Peripheral Nerve	+	+	+	+	+	M	M	M	M	M	5
Spinal Cord	+	+	+	+		M	M	M	M	M	4

**Respiratory System**

Lung	+	+	+	+	+	+	+	+	+	+	10
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10

**Special Senses System**

Eye	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Acute						1					1 1.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia, Focal	2										1 2.0
Inflammation, Acute					1			1		2	1.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:50

**First Dose M/F:** NA / NA

**Lab:** SRI

**B6C3F1 Mouse Male  
25 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	+	10
Cyst							X				1
Nephropathy	1	1								2	1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

L ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:50

First Dose M/F: NA / NA

Lab: SRI

**B6C3F1 Mouse Male  
50 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	4	6	8	9	5	5	9	7	5	7
	2	3	7	3	5	5	0	6	5	6
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	4	4	4	4	5
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Alimentary System**

Esophagus	+	+	M	+	+	+	+	+	+	9
Gallbladder	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	A	+	+	+	+	9
Liver	+	+	+	+	+	+	+	+	+	10
Depletion Glycogen				2				1	2.0	
Hematopoietic Cell Proliferation					1			1	1.0	

Pancreas	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	10

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	10
-------	---	---	---	---	---	---	---	---	---	----

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	10

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:50

First Dose M/F: NA / NA

Lab: SRI

**B6C3F1 Mouse Male**  
**50 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	4	4	4	4	5
	1	2	3	4	5	6	7	8	9	0

**\*TOTALS**

Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Pars Distalis, Cyst	X										1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

**General Body System**

NONE

**Genital System**

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic Active							1				1 1.0
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

**Hematopoietic System**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	M	+	+	+	+	+	+	9
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

**Integumentary System**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	0
---------------	---	---	---	---	---	---	---	---	---	---	---

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

**B6C3F1 Mouse Male**  
**50 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
4	6	8	9	5	5	9	7	5	7	7
2	3	7	3	5	5	0	6	5	6	6
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
4	4	4	4	4	4	4	4	4	4	5
1	2	3	4	5	6	7	8	9	0	0

\*TOTALS

Mammary Gland

M M M M M M M M M M

0

Skin

+

+

+

+

+

+

+

+

+

+

10

**Musculoskeletal System**

Bone

+

+

+

+

+

+

+

+

+

+

10

Skeletal Muscle

+

+

+

+

+

+

+

+

+

+

10

**Nervous System**

Brain

+

+

+

+

+

+

+

+

+

+

10

Peripheral Nerve

+

+

+

+

+

+

+

+

+

+

10

Spinal Cord

+

+

+

+

+

+

+

+

+

+

10

Congestion

2

1

2.0

**Respiratory System**

Lung

+

+

+

+

+

+

+

+

+

+

10

Congestion

2

1

2.0

Hemorrhage

2

2

2

1

2

5

1.8

Nose

+

+

+

+

+

+

+

+

+

+

10

Trachea

+

+

+

+

+

+

+

+

+

+

10

**Special Senses System**

Eye

+

+

+

+

+

+

+

+

+

+

10

Harderian Gland

+

+

+

+

+

+

+

+

+

+

10

**Urinary System**

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal
- 2) Mild
- 3) Moderate
- 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

## **Route: Gavage**

**Species/Strain:** Mouse/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

Date Report Requested: 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

Lab: SRI

## B6C3F1 Mouse Male

**50 MG/KG**

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

± ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

#### A ..Autolysis precludes evaluation

| ..Insufficient tissue

BLANK ..Not examined microscopically

#### 1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild      4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

**B6C3F1 Mouse Male  
75 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	5	3	3	4	5
	5	2	3	3	9	1	8	8	2	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	5	5	5	5	6
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

**Alimentary System**

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Gallbladder	+	+	+	+	+	M	+	+	+	M	8
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	M	+	+	+	+	+	+	9
Liver	+	+	+	+	+	+	+	+	+	+	10
Hematopoietic Cell Proliferation						1			1		2 1.0
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	+	10
-------	---	---	---	---	---	---	---	---	---	---	----

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	M	+	+	+	+	+	+	+	9

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

**Lab:** SRI

**B6C3F1 Mouse Male  
75 MG/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	5	3	3	4	5
	5	2	3	3	9	1	8	8	2	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	5	5	5	5	6
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

Pituitary Gland

+ M + + + + + + + + 9

Thyroid Gland

+ + + + + + + + + + 10

**General Body System**

NONE

**Genital System**

Epididymis

+ + + + + + + + + + 10

Preputial Gland

+ + + + + + + + + + 10

Prostate

+ + + + + + + + + + 10

Seminal Vesicle

+ + + + + + + + + + 10

Testes

+ + + + + + + + + + 10

**Hematopoietic System**

Bone Marrow

+ + + + + + + + + + 10

Lymph Node, Mandibular

+ + + + + + + + + + 10

Lymph Node, Mesenteric

+ + + + + + + + + + 9

Spleen

+ + + + + + + + + + 10

Thymus

+ + + + + + + + + + 10

**Integumentary System**

Mammary Gland

M M M M M M M M M M 0

Skin

+ + + + + + + + + + 10

**Musculoskeletal System**

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

**B6C3F1 Mouse Male**  
**75 MG/KG**

| DAY ON TEST |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

**\*TOTALS**

|                              |   |   |   |   |   |   |   |   |   |     |    |
|------------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Bone                         | + | + | + | + | + | + | + | + | + | +   | 10 |
| Skeletal Muscle              | + | + | + | + | + | + | + | + | + | +   | 10 |
| <b>Nervous System</b>        |   |   |   |   |   |   |   |   |   |     |    |
| Brain                        | + | + | + | + | + | + | + | + | + | +   | 10 |
| Peripheral Nerve             | + | + | + | + | + | + | + | + | + | +   | 10 |
| Spinal Cord                  | + | + | + | + | + | + | + | + | + | +   | 10 |
| Congestion                   |   |   |   |   |   | 2 |   |   | 1 | 2.0 |    |
| <b>Respiratory System</b>    |   |   |   |   |   |   |   |   |   |     |    |
| Lung                         | + | + | + | + | + | + | + | + | + | +   | 10 |
| Congestion                   | 1 | 2 | 2 | 2 | 2 |   |   |   | 5 | 1.8 |    |
| Hemorrhage                   |   |   |   |   |   | 1 |   |   | 1 | 1.0 |    |
| Nose                         | + | + | + | + | + | + | + | + | + | +   | 10 |
| Trachea                      | + | + | + | + | + | + | + | + | + | +   | 10 |
| <b>Special Senses System</b> |   |   |   |   |   |   |   |   |   |     |    |
| Eye                          | + | + | + | + | + | + | + | + | + | +   | 10 |
| Harderian Gland              | + | + | + | + | + | + | + | + | + | +   | 10 |
| <b>Urinary System</b>        |   |   |   |   |   |   |   |   |   |     |    |
| Kidney                       | + | + | + | + | + | + | + | + | + | +   | 10 |
| Nephropathy                  |   |   |   |   |   |   | 1 |   | 1 | 1.0 |    |
| Renal Tubule, Mineralization |   |   |   |   |   | 1 |   |   | 1 | 1.0 |    |
| Urinary Bladder              | + | + | + | + | + | + | + | + | + | +   | 10 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

**Lab:** SRI

\*\*\*END OF MALE DATA\*\*\*

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>0 MG/KG | DAY ON TEST | 0 0 0 0 0 0 0 0 0 0 |                     |                     |                     |                     |                     |                     |                     |                     |                     |
|--------------------------------|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                |             | 0 0 0 0 0 0 0 0 0 0 |                     |                     |                     |                     |                     |                     |                     |                     |                     |
|                                | ANIMAL ID   | 9 9 9 9 9 9 9 9 9 9 | 3 3 3 3 3 3 3 3 3 3 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 |
|                                |             | 6 6 6 6 6 6 6 6 6 7 | 1 2 3 4 5 6 7 8 9 0 |                     |                     |                     |                     |                     |                     |                     |                     |

\*TOTALS

Alimentary System

|                                  |   |   |   |   |   |   |   |   |     |     |    |
|----------------------------------|---|---|---|---|---|---|---|---|-----|-----|----|
| Esophagus                        | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Gallbladder                      | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Liver                            | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Hematopoietic Cell Proliferation | 1 | 1 |   |   |   |   | 1 |   | 3   | 1.0 |    |
| Pancreas                         | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Acinus, Atrophy, Focal           |   |   | 2 |   |   |   |   |   | 1   | 2.0 |    |
| Salivary Glands                  | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Stomach, Forestomach             | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Stomach, Glandular               | + | + | + | + | + | + | + | + | +   | +   | 10 |
| Cyst                             | X |   |   | X |   |   |   | 2 |     |     |    |
| Mineralization                   |   |   |   | 1 |   |   |   | 1 | 1.0 |     |    |

Cardiovascular System

|       |   |   |   |   |   |   |   |   |   |   |    |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Endocrine System

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

| <b>B6C3F1 Mouse Female</b><br><b>0 MG/KG</b> | DAY ON TEST | 0 0 0 0 0 0 0 0 0 0 |   |   |   |   |   |   |   |   |   |  |
|--|-------------|---------------------|---|---|---|---|---|---|---|---|---|--|
|  |             | 0 0 0 0 0 0 0 0 0 0 |   |   |   |   |   |   |   |   |   |  |
|  |             | 9 9 9 9 9 9 9 9 9 9 |   |   |   |   |   |   |   |   |   |  |
|  |             | 3 3 3 3 3 3 3 3 3 3 |   |   |   |   |   |   |   |   |   |  |
|  |             | 0 0 0 0 0 0 0 0 0 0 |   |   |   |   |   |   |   |   |   |  |
| ANIMAL ID                                    |             | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|  |             | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|  |             | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|  |             | 6                   | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |  |
|  |             | 1                   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |  |

**\*TOTALS**

|                   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex    | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla   | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Pituitary Gland   | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland     | + | + | + | + | + | + | + | + | + | + | 10 |

**General Body System**

NONE

**Genital System**

|                |   |   |   |   |   |   |   |   |   |   |    |
|----------------|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | M | 9  |
| Ovary          | + | + | + | + | + | + | + | + | + | + | 10 |
| Uterus         | + | + | + | + | + | + | + | + | + | + | 10 |
| Vagina         | + | + | + | + | + | + | + | + | + | + | 10 |

**Hematopoietic System**

|                                  |   |   |   |   |   |   |   |   |   |   |     |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | 10  |
| Lymph Node, Mandibular           | + | + | + | + | + | + | + | + | + | M | 9   |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | 10  |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | 10  |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   | 2 |   |   | 1 | 2.0 |
| Thymus                           | + | + | + | + | + | + | + | + | + | + | 10  |

**Integumentary System**

|               |   |   |   |   |   |   |   |   |   |   |    |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
|---------------|---|---|---|---|---|---|---|---|---|---|----|

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>0 MG/KG | DAY ON TEST   |   |   |   |   |   |   |   |   |     |    |
|--------------------------------|---------------|---|---|---|---|---|---|---|---|-----|----|
|                                |               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0  |
| ANIMAL ID                      | 9             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9   | 9  |
|                                | 3             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3   | 3  |
|                                | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0  |
|                                | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0  |
|                                | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0  |
|                                | 6             | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6   | 7  |
|                                | 1             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0   | *  |
|                                | *TOTALS       |   |   |   |   |   |   |   |   |     |    |
|                                | Mammary Gland | + | + | + | + | + | + | + | + | +   | 10 |
|                                | Skin          | + | + | + | + | + | + | + | + | +   | 10 |
| Musculoskeletal System         |               |   |   |   |   |   |   |   |   |     |    |
| Bone                           | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Skeletal Muscle                | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Nervous System                 |               |   |   |   |   |   |   |   |   |     |    |
| Brain                          | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Peripheral Nerve               | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Spinal Cord                    | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Respiratory System             |               |   |   |   |   |   |   |   |   |     |    |
| Lung                           | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Nose                           | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Trachea                        | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Special Senses System          |               |   |   |   |   |   |   |   |   |     |    |
| Eye                            | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Harderian Gland                | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Inflammation, Acute            |               |   |   |   |   | 1 |   |   | 1 | 1.0 |    |
| Urinary System                 |               |   |   |   |   |   |   |   |   |     |    |
| Kidney                         | +             | + | + | + | + | + | + | + | + | +   | 10 |
| Casts Protein                  | 1             | 1 |   |   |   | 1 |   |   | 3 | 1.0 |    |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

**Lab:** SRI

**B6C3F1 Mouse Female**  
**0 MG/KG**

| DAY ON TEST     |                |   |   |   |   |   |   |   |   |       |
|-----------------|----------------|---|---|---|---|---|---|---|---|-------|
|                 | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |
| ANIMAL ID       | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |
|                 | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |
|                 | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |
|                 | 6              | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7     |
|                 | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0     |
|                 | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |       |
| Nephropathy     |                |   |   |   | 1 |   |   |   |   | 1 1.0 |
| Urinary Bladder | +              | + | + | + | + | + | + | + | + | 10    |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>6.25 MG/KG | DAY ON TEST |   |   |   |   |   |   |   |   |   |         |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---------|
|                                   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
| ANIMAL ID                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                   | 7           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8       |
|                                   | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |
|                                   |             |   |   |   |   |   |   |   |   |   |         |
|                                   |             |   |   |   |   |   |   |   |   |   |         |
|                                   |             |   |   |   |   |   |   |   |   |   |         |
|                                   |             |   |   |   |   |   |   |   |   |   |         |
|                                   |             |   |   |   |   |   |   |   |   |   |         |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex

++ + + + + + + + + + 10

General Body System

NONE

Genital System

Ovary

++ + + + + + + + + 10

Uterus

++ + + + + + + + + 10

Vagina

++ + + + + + + + + 10

Hematopoietic System

Spleen

+ 1

Hyperplasia, Lymphoid, Focal

1 1 1.0

Integumentary System

NONE

Musculoskeletal System

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

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**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

**Lab:** SRI

| B6C3F1 Mouse Female<br>6.25 MG/KG | DAY ON TEST |                     |                     |   |   |   |   |   |   |   |   | <b>*TOTALS</b> |  |  |  |
|-----------------------------------|-------------|---------------------|---------------------|---|---|---|---|---|---|---|---|----------------|--|--|--|
|                                   |             | 0                   | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |  |  |  |
| ANIMAL ID                         | 0           | 0                   | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |  |  |  |
|                                   | 0           | 0                   | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |  |  |  |
|                                   | 0           | 0                   | 0                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |  |  |  |
|                                   | 7           | 7                   | 7                   | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |                |  |  |  |
|                                   | 1           | 2                   | 3                   | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 |                |  |  |  |
|                                   | M           | M                   | M                   | M | M | M | M | M | M | M | 0 |                |  |  |  |
|                                   | M           | M                   | M                   | M | M | M | M | M | M | M | 0 |                |  |  |  |
|                                   | M           | M                   | M                   | M | M | M | M | M | M | M | 0 |                |  |  |  |
| <b>Skeletal Muscle</b>            |             | + + + + + + + + + + |                     |   |   |   |   |   |   |   |   |                |  |  |  |
| <b>Nervous System</b>             |             | 10                  |                     |   |   |   |   |   |   |   |   |                |  |  |  |
| Brain                             |             | +                   | + + + + + + + + + + |   |   |   |   |   |   |   |   |                |  |  |  |
| Peripheral Nerve                  |             | M                   | M M M M M M M M M M |   |   |   |   |   |   |   |   |                |  |  |  |
| Spinal Cord                       |             | M                   | M M M M M M M M M M |   |   |   |   |   |   |   |   |                |  |  |  |
| <b>Respiratory System</b>         |             | NONE                |                     |   |   |   |   |   |   |   |   |                |  |  |  |
| <b>Special Senses System</b>      |             | NONE                |                     |   |   |   |   |   |   |   |   |                |  |  |  |
| <b>Urinary System</b>             |             | NONE                |                     |   |   |   |   |   |   |   |   |                |  |  |  |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

**Lab:** SRI

| <b>B6C3F1 Mouse Female</b><br><b>12.5 MG/KG</b> | DAY ON TEST | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|----------------|---|---|---|---|---|---|---|---|
|   |             | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 9              | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|   |             | 3              | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|   | ANIMAL ID   | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 8              | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
|   |             | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|   |             | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

Adrenal Cortex

  + + + + + + + + + + 10

**General Body System**

NONE

**Genital System**

Ovary

  + + + + + + + + + + 10

Uterus

  + + + + + + + + + + 10

Dilatation

                          1                               1    1.0

Vagina

  + + + + + + + + + + 10

**Hematopoietic System**

NONE

**Integumentary System**

NONE

**Musculoskeletal System**

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal    3) Moderate
- 2) Mild        4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

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**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:51

**First Dose M/F:** NA / NA

**Lab:** SRI

| B6C3F1 Mouse Female<br>12.5 MG/KG | DAY ON TEST         | 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---------------------|---------------------|--|--|--|--|--|--|--|--|--|
|                                   |                     | 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  |  |
| ANIMAL ID                         | 9 9 9 9 9 9 9 9 9 9 | 3 3 3 3 3 3 3 3 3 3 |  |  |  |  |  |  |  |  |  |
|                                   | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  |  |
|                                   | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  |  |
|                                   | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  |  |
|                                   | 8 8 8 8 8 8 8 8 8 9 | 8 8 8 8 8 8 8 8 8 9 |  |  |  |  |  |  |  |  |  |
|                                   | 1 2 3 4 5 6 7 8 9 0 | 2 3 4 5 6 7 8 9 0   |  |  |  |  |  |  |  |  |  |
|                                   | *TOTALS             |                     |  |  |  |  |  |  |  |  |  |
|                                   | M M M M M M M M M M | M M M M M M M M M M |  |  |  |  |  |  |  |  |  |
|                                   | NONE                | NONE                |  |  |  |  |  |  |  |  |  |
|                                   | Nervous System      | Nervous System      |  |  |  |  |  |  |  |  |  |
| Brain                             | + + + + + + + + + + | + + + + + + + + + + |  |  |  |  |  |  |  |  |  |
| Peripheral Nerve                  | M M M M M M M M M M | M M M M M M M M M M |  |  |  |  |  |  |  |  |  |
| Spinal Cord                       | M M M M M M M M M M | M M M M M M M M M M |  |  |  |  |  |  |  |  |  |
| Respiratory System                | NONE                | NONE                |  |  |  |  |  |  |  |  |  |
| Special Senses System             | NONE                | NONE                |  |  |  |  |  |  |  |  |  |
| Urinary System                    | NONE                | NONE                |  |  |  |  |  |  |  |  |  |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:51

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>25 MG/KG | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|                                 |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID                       |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|                                 |             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|                                 |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

**Alimentary System**

|                                  |   |   |   |   |   |   |   |   |     |   |    |
|----------------------------------|---|---|---|---|---|---|---|---|-----|---|----|
| Esophagus                        | + | + | + | + | + | + | + | + | +   | + | 10 |
| Gallbladder                      | + | + | + | + | + | + | + | + | +   | + | 10 |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | +   | + | 10 |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | +   | + | 10 |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | +   | + | 10 |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | +   | + | 10 |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | +   | + | 10 |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | +   | + | 10 |
| Liver                            | + | + | + | + | + | + | + | + | +   | + | 10 |
| Hematopoietic Cell Proliferation |   | 1 | 1 |   | 1 |   |   | 3 | 1.0 |   |    |
| Pancreas                         | + | + | + | + | + | + | + | + | +   | + | 10 |
| Salivary Glands                  | + | + | + | + | + | + | + | + | +   | + | 10 |
| Stomach, Forestomach             | + | + | + | + | + | + | + | + | +   | + | 10 |
| Stomach, Glandular               | + | + | + | + | + | + | + | + | +   | + | 10 |

**Cardiovascular System**

|       |   |   |   |   |   |   |   |   |   |   |    |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

**Endocrine System**

|                   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex    | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla   | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>25 MG/KG  | DAY ON TEST |   |   |   |   |   |   |   |   |   |     |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|-----|
|                                  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   |
|                                  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   |
|                                  |             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9   |
|                                  |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3   |
|                                  | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   |
|                                  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   |
|                                  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1   |
|                                  |             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0   |
|                                  |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0   |
| *TOTALS                          |             |   |   |   |   |   |   |   |   |   |     |
| Pituitary Gland                  |             | + | + | + | + | + | + | + | + | + | 10  |
| Thyroid Gland                    |             | + | + | + | + | + | + | + | + | + | 10  |
| <b>General Body System</b>       |             |   |   |   |   |   |   |   |   |   |     |
| NONE                             |             |   |   |   |   |   |   |   |   |   |     |
| <b>Genital System</b>            |             |   |   |   |   |   |   |   |   |   |     |
| Clitoral Gland                   |             | + | + | + | + | + | + | + | + | + | 10  |
| Ovary                            |             | + | + | + | + | + | + | + | + | + | 10  |
| Uterus                           |             | + | + | + | + | + | + | + | + | + | 10  |
| Vagina                           |             | + | + | + | + | + | + | + | + | + | 10  |
| <b>Hematopoietic System</b>      |             |   |   |   |   |   |   |   |   |   |     |
| Bone Marrow                      |             | + | + | + | + | + | + | + | + | + | 10  |
| Lymph Node, Mandibular           |             | + | + | + | + | + | + | + | + | + | 10  |
| Lymph Node, Mesenteric           |             | + | + | + | + | + | + | + | + | + | 10  |
| Spleen                           |             | + | + | + | + | + | + | + | + | + | 10  |
| Hematopoietic Cell Proliferation |             |   |   |   |   |   |   | 1 |   | 1 | 1.0 |
| Thymus                           |             | + | + | + | + | + | + | + | + | + | 10  |
| <b>Integumentary System</b>      |             |   |   |   |   |   |   |   |   |   |     |
| Mammary Gland                    |             | + | + | + | + | + | + | + | + | + | 10  |
| Skin                             |             | + | + | + | + | + | + | + | + | + | 10  |
| <b>Musculoskeletal System</b>    |             |   |   |   |   |   |   |   |   |   |     |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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2) Mild 4) Marked

**Experiment Number:** 99037-04

**Test Type:** 90-DAY

**Route:** Gavage

**Species/Strain:** Mouse/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** alpha/beta Thujone mixture

**CAS Number:** 76231-76-0

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 21:16:52

**First Dose M/F:** NA / NA

**Lab:** SRI

| <b>B6C3F1 Mouse Female</b><br><b>25 MG/KG</b> | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |
|---|-------------|---|---|---|---|---|---|---|---|---|---|
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|   |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|   |             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|   |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

Bone + + + + + + + + + + 10

Skeletal Muscle M M M M M + + + + + + 5

**Nervous System**

Brain + + + + + + + + + + 10

Peripheral Nerve M M M M M + + + + + + 5

Spinal Cord M M M M M + + + + + + 5

**Respiratory System**

Lung + + + + + + + + + + 10

Infiltration Cellular, Histiocyte, Focal 2 1 2.0

Inflammation, Acute 2 1 2.0

Nose + + + + + + + + + + 10

Trachea + + + + + + + + + + 10

**Special Senses System**

Eye + + + + + + + + + + 10

Harderian Gland + + + + + + + + + + 10

**Urinary System**

Kidney + + + + + + + + + + 10

Urinary Bladder + + + + + + + + + + 10

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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Test Type: 90-DAY

Route: Gavage

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## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

| <b>B6C3F1 Mouse Female</b><br><b>50 MG/KG</b> | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |
|---|-------------|---|---|---|---|---|---|---|---|---|---|
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 6 | 6 | 7 | 9 | 7 | 8 | 7 | 9 | 9 | 7 |
|   |             | 5 | 3 | 2 | 3 | 5 | 3 | 6 | 3 | 3 | 5 |
| ANIMAL ID                                     |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|   |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

**Alimentary System**

|                                  |   |   |   |   |   |   |   |   |   |     |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Esophagus                        | + | + | + | + | + | + | + | + | + | +   | 10 |
| Gallbladder                      | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Small, Duodenum        | + | + | + | + | + | + | A | + | + | +   | 9  |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Small, Jejunum         | + | A | + | + | + | M | + | + | + | +   | 8  |
| Liver                            | + | + | + | + | + | + | + | + | + | +   | 10 |
| Hematopoietic Cell Proliferation | 1 | 1 |   |   | 1 |   |   | 1 | 4 | 1.0 |    |
| Pancreas                         | + | + | + | + | + | + | + | + | + | +   | 10 |
| Salivary Glands                  | + | + | + | + | + | + | + | + | + | +   | 10 |
| Stomach, Forestomach             | + | + | + | + | + | + | + | + | + | +   | 10 |
| Stomach, Glandular               | + | + | + | + | + | + | + | + | + | +   | 10 |

**Cardiovascular System**

|       |   |   |   |   |   |   |   |   |   |   |    |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

**Endocrine System**

|                                   |   |   |   |   |   |   |   |   |   |     |    |
|-----------------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Adrenal Cortex                    | + | + | + | + | + | + | + | + | + | +   | 10 |
| Accessory Adrenal Cortical Nodule |   |   |   |   |   | 2 |   |   | 1 | 2.0 |    |
| Adrenal Medulla                   | + | + | + | + | + | + | + | + | + | +   | 10 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

|  |  | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--|-------------|---|---|---|---|---|---|---|---|
|  |  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | 6           | 6 | 7 | 9 | 7 | 8 | 7 | 9 | 9 |
|  |  | 5           | 3 | 2 | 3 | 5 | 3 | 6 | 3 | 3 |
|  |  | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|  |  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|  |  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|  |  | *TOTALS     |   |   |   |   |   |   |   |   |

Parathyroid Gland

+ + + + + + + + + + 10

Pituitary Gland

+ + + + + + + + + + 10

Thyroid Gland

+ + + + + + + + + + 10

**General Body System**

NONE

**Genital System**

Clitoral Gland

+ + + + + + + + + + 10

Ovary

+ + + + + + + + + + 10

Uterus

+ + + + + + + + + + 10

Vagina

+ + + + + + + + + + 10

**Hematopoietic System**

Bone Marrow

+ + + + + + + + + + 10

Lymph Node, Mandibular

+ + + + + + + + + + 10

Lymph Node, Mesenteric

+ + + + + + + + + + 10

Spleen

+ + + + + + + + + + 10

Thymus

+ + + + + + + + + + 10

**Integumentary System**

Mammary Gland

+ + + + + + + + + + 10

Skin

+ + + + + + + + + + 10

**Musculoskeletal System**

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Route: Gavage

Species/Strain: Mouse/B6C3F1

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Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

| <b>B6C3F1 Mouse Female</b><br><b>50 MG/KG</b> | DAY ON TEST |   |   |   |   |   |   |   |   |   |       |  |
|---|-------------|---|---|---|---|---|---|---|---|---|-------|--|
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |  |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |  |
|   |             | 6 | 6 | 7 | 9 | 7 | 8 | 7 | 9 | 9 | 7     |  |
|   |             | 5 | 3 | 2 | 3 | 5 | 3 | 6 | 3 | 3 | 5     |  |
| ANIMAL ID                                     |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |  |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |  |
|   |             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1     |  |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1     |  |
|   |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0     |  |
| <b>*TOTALS</b>                                |             |   |   |   |   |   |   |   |   |   |       |  |
| Bone  |             | + | + | + | + | + | + | + | + | + | +     |  |
| Skeletal Muscle                               |             | + | + | + | + | + | + | + | + | + | +     |  |
| <b>Nervous System</b>                         |             |   |   |   |   |   |   |   |   |   |       |  |
| Brain   |             | + | + | + | + | + | + | + | + | + | 10    |  |
| Inflammation, Acute                           |             |   |   |   |   |   | 1 |   |   |   | 1 1.0 |  |
| Peripheral Nerve                              |             | + | + | + | + | + | + | + | + | + | 10    |  |
| Spinal Cord                                   |             | + | + | + | + | + | + | + | + | + | 10    |  |
| <b>Respiratory System</b>                     |             |   |   |   |   |   |   |   |   |   |       |  |
| Lung  |             | + | + | + | + | + | + | + | + | + | 10    |  |
| Congestion                                    |             |   |   | 2 |   |   | 1 |   |   |   | 2 1.5 |  |
| Hemorrhage                                    |             | 1 |   |   |   | 1 |   |   |   |   | 2 1.0 |  |
| Nose  |             | + | + | + | + | + | + | + | + | + | 10    |  |
| Trachea                                       |             | + | + | + | + | + | + | + | + | + | 10    |  |
| <b>Special Senses System</b>                  |             |   |   |   |   |   |   |   |   |   |       |  |
| Eye   |             | + | + | + | + | + | + | + | + | + | 10    |  |
| Harderian Gland                               |             | + | + | + | + | + | + | + | + | + | 10    |  |
| <b>Urinary System</b>                         |             |   |   |   |   |   |   |   |   |   |       |  |
| Kidney  |             | + | + | + | + | + | + | + | + | + | 10    |  |
| Nephropathy                                   |             |   |   |   |   |   | 1 |   |   |   | 1 1.0 |  |
| Urinary Bladder                               |             | + | + | + | + | + | + | + | + | + | 10    |  |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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BLANK ..Not examined microscopically

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Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>75 MG/KG | DAY ON TEST |   |   |   |   |   |   |   |   |   |         |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---------|
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                 |             | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4       |
|                                 |             | 1 | 9 | 2 | 8 | 8 | 6 | 1 | 1 | 2 | 9       |
| ANIMAL ID                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                 | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1       |
|                                 | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2       |
|                                 | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |

Alimentary System

|                                  |   |   |   |   |   |   |   |   |   |     |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Esophagus                        | + | + | + | + | + | + | + | + | + | +   | 10 |
| Gallbladder                      | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | +   | 10 |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | +   | 10 |
| Liver                            | + | + | + | + | + | + | + | + | + | +   | 10 |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   | 1 | 1 | 2 | 1.0 |    |
| Hepatodiaphragmatic Nodule       |   |   |   |   |   |   | X |   | 1 |     |    |
| Pancreas                         | + | + | + | + | + | + | + | + | + | +   | 10 |
| Salivary Glands                  | + | + | + | + | + | + | + | + | + | +   | 10 |
| Stomach, Forestomach             | + | + | + | + | + | + | + | + | + | +   | 10 |
| Stomach, Glandular               | + | + | + | + | + | + | + | + | + | +   | 10 |

Cardiovascular System

|       |   |   |   |   |   |   |   |   |   |   |    |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Endocrine System

|                 |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex  | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

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Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>75 MG/KG | DAY ON TEST                   |   |   |   |   |   |   |   |   |   |         |
|---------------------------------|-------------------------------|---|---|---|---|---|---|---|---|---|---------|
|                                 |                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
| ANIMAL ID                       | 0                             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                 | 0                             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                 | 1                             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1       |
|                                 | 1                             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2       |
|                                 | 1                             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |
|                                 | Parathyroid Gland             | + | + | + | M | + | + | + | + | + | 9       |
|                                 | Pituitary Gland               | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Thyroid Gland                 | + | + | + | + | + | + | + | + | + | 10      |
|                                 | <b>General Body System</b>    |   |   |   |   |   |   |   |   |   |         |
|                                 | NONE                          |   |   |   |   |   |   |   |   |   |         |
| <b>Genital System</b>           | Clitoral Gland                | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Ovary                         | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Uterus                        | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Vagina                        | + | + | + | + | + | + | + | + | + | 10      |
|                                 | <b>Hematopoietic System</b>   |   |   |   |   |   |   |   |   |   |         |
| <b>Hematopoietic System</b>     | Bone Marrow                   | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Lymph Node, Mandibular        | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Lymph Node, Mesenteric        | + | + | + | + | + | + | + | M | + | 9       |
|                                 | Spleen                        | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Thymus                        | + | + | + | + | + | + | + | + | + | 10      |
| <b>Integumentary System</b>     | Mammary Gland                 | + | + | + | + | + | + | + | + | + | 10      |
|                                 | Skin                          | + | + | + | + | + | + | + | + | + | 10      |
|                                 | <b>Musculoskeletal System</b> |   |   |   |   |   |   |   |   |   |         |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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Experiment Number: 99037-04

Test Type: 90-DAY

Route: Gavage

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 10/22/2014

Time Report Requested: 21:16:52

First Dose M/F: NA / NA

Lab: SRI

| B6C3F1 Mouse Female<br>75 MG/KG | DAY ON TEST           |   |   |   |   |   |   |   |   |     |         |
|---------------------------------|-----------------------|---|---|---|---|---|---|---|---|-----|---------|
|                                 |                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0       |
| ANIMAL ID                       | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0       |
|                                 | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0   | 0       |
|                                 | 1                     | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1   | 1       |
|                                 | 1                     | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1   | 2       |
|                                 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0   | *TOTALS |
|                                 | Bone                  | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Skeletal Muscle       | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Nervous System        |   |   |   |   |   |   |   |   |     |         |
|                                 | Brain                 | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Peripheral Nerve      | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Spinal Cord           | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Respiratory System    |   |   |   |   |   |   |   |   |     |         |
|                                 | Lung                  | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Congestion            | 2 | 1 |   |   | 2 |   |   | 3 | 1.7 |         |
|                                 | Nose                  | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Trachea               | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Special Senses System |   |   |   |   |   |   |   |   |     |         |
|                                 | Eye                   | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Harderian Gland       | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Urinary System        |   |   |   |   |   |   |   |   |     |         |
|                                 | Kidney                | + | + | + | + | + | + | + | + | +   | 10      |
|                                 | Urinary Bladder       | + | + | + | + | + | + | + | + | +   | 10      |

\*\* END OF REPORT \*\*

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked